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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,909

04/13/2006

Philippe Noelle

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EXAMINER

BASKIN, JEREMY S

ART UNIT

PAPER NUMBER

3753

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,909	Applicant(s) NOELLE, PHILIPPE	
	Examiner Jeremy S. Baskin	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 July 2009 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of Claim 7 involving a vacuum source must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Figures 2 and 3 of the drawings are further objected to. The figures display internal features of the turbocharger valve without proper hatching. Hatching is required in order to clearly distinguish mechanical features from their mating parts.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 7 is objected to because of the following informalities: In claim 7, line 6, the limitation "chaber" should be read "chamber". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 4, line 2, the limitation "a bladed wheel" is not defined within the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In regard to claims 5-11, the limitation "the turbocharger compressor" found within the preamble of each claim lacks antecedent basis.

In regard to claims 12-17, claim 12 recites "a valve assembly for use with a turbocharger compressor" in the preamble of the claim. It is unclear whether the turbocharger compressor is included or excluded from the claimed invention. Claims 13-17 are rejected as being dependent upon claim 12. It has been held that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. Therefore, the limitation is being treated as an intended use statement and has not been treated as a combination claim that would include the compressor.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 12 are rejected, as best understood by the Examiner, under 35 U.S.C. 103(a) as being unpatentable over Benson (5,673,559) in view of Smith (1,026,472).

Benson teaches a turbocharger 10 comprising a housing 11 that defines a low pressure side 15 and a high pressure side 40 with an opening 47 in between. A valve member 48 is received in the opening to regulate the fluid flow through the opening. A retainer 54 has a distal end that is received in the housing at 53 and a proximal end that forms a threaded shaft. A coil

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spring 56 has a proximal end attached to the valve member via 57. The spring and retainer are configured to urge the valve member from the open position to the closed position. Benson fails to specifically teach where the coil spring has a smaller diameter set of coils on a distal end that threadingly engages the shaft of the retainer.

Smith discloses an adjustable spring valve spring for internal combustion engines. Smith teaches where a coil spring 8 possesses a set of smaller diameter coils at 15 that threadingly engage a spring retainer 13.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate, in Benson, a set of smaller diameter coils on the distal end of the coil spring that engage a set of corresponding threads on a retainer, as taught by Smith, so as to adjust the compression force of the coil spring and thus the closing force of the valve member.

In regard to claims 5 and 13, Benson teaches where the valve member is a piston-like portion 48 that extends through the opening and engages a flange at 47 configured to abut a perimeter of the valve member in the closed position.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benson in view of Smith as applied to claim 4 above, and further in view of Kyoya et al. (5,137,003).

In regard to claim 6, Benson teaches where the turbocharger comprises a diaphragm which engages 57 in Figure 4 such that the diaphragm and valve member are configured to be urged from the closed position to the open position from pressure from the high pressure side. Benson fails to specifically teach where the diaphragm forms a channel around the valve member in the closed position and a passageway in the open position and is in fluid communication with the high pressure side

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Kyoya discloses a turbocharger. In Figure 2, Kyoya teaches where a diaphragm 38 forms a channel around a valve member 40 in the closed position and is in fluid communication with a high pressure side 34. The diaphragm then defines a passageway between the high pressure side 34 and low pressure side 35 when in the open position.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to integrate, within Benson, the valve member and diaphragm together, as taught by Kyoya, so as to significantly reduce the space required for the valve assembly and to reduce the number of pipes of the turbocharger assembly.

In regard to claims 7 and 14, Benson teaches a cover at 12 that is sealed to the housing at 43 and forms a chamber that is isolated from fluid communication with the channel. Benson fails to specifically teach where the cover forms a chamber inlet for connection to a vacuum source.

Kyoya teaches where a cover 36 forms a chamber 36a and chamber inlet 45 on a side of the diaphragm opposite to the channel. In Figure 3, Kyoya teaches where it is known to connect the chamber inlet 22 to a vacuum source via 20 to urge the valve member to the open position.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate, in Benson, a chamber inlet on the cover for a connection to a vacuum source, as taught by Kyoya, so as to urge the valve member to the open position using forces from both the input and output conditions of the turbocharger valve.

In regard to claim 11, Benson fails to specifically teach where the high pressure side is a compressor outlet and the low pressure side is a compressor inlet.

In Figure 3, Kyoya teaches where it is known that a compressor 3 has an outlet at 2 that forms a high pressure side and an inlet at 4 that forms a low pressure side.

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At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate, in Benson, a high pressure side as a compressor outlet and a low pressure side as a compressor inlet, as taught by Kyoya, so as to effect a displacement of the valve member using the outlet gases of the compressor thereby reducing head loss in the normally closed condition.

10. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson in view of Smith as applied to claim 4 above, and further in view of Johnson (3,386,465).

In regard to claims 8 and 15, Benson teaches where the where the distal end of the retainer 54 is received in a threaded hole in the housing, but fails to specifically teach where the hole is a blind hole.

Johnson discloses a diaphragm gas valve. In Figure 1, Johnson teaches where a threaded spring retainer that engages a spring 9 is disposed in a threaded blind hole.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate, in Benson, a blind hole for housing the distal end of the retainer, as taught by Johnson, so as to mitigate disassembly of the retainer due to vibration of the turbocharger.

11. Claims 9, 10, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson in view of Smith as applied to claim 4 above, and further in view of Jespersen (3,695,577).

In regard to claims 9, 10, 16, and 17, Benson fails to specifically teach where the spring is threadedly received, or fixedly fitted, onto the valve member.

Jespersen discloses a spring biased gas valve. In Figure 1, Jespersen teaches where a coil spring 19 threadingly engages, or is fixedly fitted, to a valve member 6, 9 via a smaller set of spring coils 18 (col. 3, lines 45-53).

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At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate, Benson, a coil spring that threadingly engages the valve member, as taught by Jespersen, so as to prevent the spring from sliding axially or radially in relation to the valve member.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. St. Clair (3,971,410) discloses a spring biased gas spring with a coil spring that threadingly engages a retainer. Vertanen (5,746,058) discloses an adjustable valve actuator for a turbocharger.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy S. Baskin whose telephone number is (571) 270-7421. The examiner can normally be reached on Monday through Friday, 7:30AM to 5:00PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. B./

Examiner, Art Unit 3753

/Robin O. Evans/

Supervisory Patent Examiner, Art Unit 3753